

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the Application:

Listing of Claims:

1. (Currently Amended) A telecommunication network for communication between a local device and at least one remote device, comprising:

a network system integrated with an SIP call server and an SIP agent client of a local device, the network apparatus system being based on the Session Initiation Protocol (SIP) structure, the network system and being provided between a the local device and a network for connecting with at least one remote an SIP agent client of at least one remote device, the wherein said network system comprising includes:

at least one local connecting port for coupling with the local device;

a remote connecting port for coupling with the network; and

an SIP processing module electrically connected with the local connecting port and remote connecting port to execute at least one SIP agent client program and at least one SIP call server program, the SIP processing module including:

a local said SIP agent client of the local device for executing at least one SIP agent client program to convert converting an analog voice signal of the

local device into a digital signal and ~~send~~ sending the digital signal to the ~~remote~~ SIP agent client of said at least one remote device, ~~or convert the~~ and converting a digital signal sent from the ~~remote~~ SIP agent client of said at least one remote device into an analog voice signal and ~~then send~~ sending the analog voice signal to the local device; and

~~an~~ said SIP call server, said SIP call server being based on an SIP structure and being operatively coupled between said SIP agent client of the local device and said SIP agent client of said at least one remote device ~~for executing at least one SIP call server program, whereby~~ wherein after the local said SIP agent client of the local device and the ~~remote~~ said SIP agent client of said at least one remote device perform SIP registry and the locations of the ~~local~~ said SIP agent client of the local device and the ~~remote~~ said SIP agent client of said at least one remote device are linked, the local said SIP agent client of the local device and the ~~remote~~ said SIP agent client of said at least one remote device can bidirectionally telecommunicate with each other by voice.

2. (Currently Amended) A telecommunication network for communication between an IP phone and at least one remote device, comprising:

a network system integrated with an SIP call server and an SIP agent client of a local device, the network apparatus system being based on the Session Initiation Protocol (SIP) structure, the network system being provided connected

between a the local device and a network for connecting with ~~at least one remote~~
an SIP agent client the of at least one remote device,

wherein said the network system comprising:

~~a network device is being one~~ selected from a group consisting of:
an ADSL modem, a cable modem, a wireless LAN access point, ~~or~~ and an IP
sharer; and

wherein the network device having system includes:

at least one local connecting port for coupling with the local device; ,
~~the network device having~~ a remote connecting port for coupling
with the network; and,

an SIP processing module disposed in the network device system
and ~~being~~ electrically connected with the local connecting port and remote
connecting port to execute at least one SIP agent client program and at least one
SIP call server program,

at least one IP phone connecting port for coupling with at least one
IP phone, and

a voice processing module electrically connected with said IP phone
connecting port and said SIP processing module, the voice processing module
converting an analog voice signal of the IP phone into a digital signal, or
converting the digital signal of the SIP processing module into an analog voice
signal,

wherein the SIP processing module ~~including~~ includes:

~~a local~~ said SIP agent client of the local device coupled to said voice processing module, ~~for executing at least one SIP agent client program to convert an analog voice signal of the local device into a digital signal and send the digital signal to the remote SIP agent client or convert the digital signal sent from the remote SIP agent client into an analog voice signal and then send the voice signal to the local device;~~ and

~~an~~ said SIP call server, said SIP call server being based on an SIP structure and being operatively coupled between said SIP agent client of the local device and said SIP agent client of said at least one remote device, ~~for executing at least one SIP call server program whereby~~ wherein after the local SIP agent client of the local device and the remote SIP agent client of said at least one remote device perform SIP registry and the locations of the local SIP agent client of the local device and the remote SIP agent client of said at least one remote device are linked by said SIP call server, ~~the local SIP agent client and the remote SIP agent client can bidirectionally telecommunicate~~ a user, by means of the IP phone, communicates with each other said SIP agent client of said at least one remote device by voice.

3. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 1, wherein the local device is a computer mainframe, a network hub, an IP phone or a PSTN gateway.

4. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 3, wherein the PSTN gateway is connected with at least one telephone, facsimile or PBX.

5. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 1, wherein the network is an LAN or Internet.

6. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 1, wherein the remote device is a computer, a network hub, an IP phone, a PSTN gateway or a VoIP gateway.

7. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 6, wherein the PSTN gateway is connected with at least one telephone, facsimile or PBX.

8. (Currently Amended) The telecommunication network system as claimed in claim 6, wherein the VoIP gateway is connected with at least one VoIP phone.

9. (Currently Amended) The telecommunication network system as claimed in claim 1, wherein the SIP processing module via the local connecting port controls the transmission of the data packet between the network system and the local drive.

10. (Currently Amended) The telecommunication network system as claimed in claim 1, wherein the SIP processing module via the remote connecting port controls the transmission of the data packet between the network system and the network.

11. (Currently Amended) The telecommunication network system as claimed in claim 1, wherein the hardware structure of the SIP processing module includes:

a microprocessor unit for executing the SIP call server program and SIP agent client program;

a memory unit electrically connected with the microprocessor unit for storing the SIP call server and agent client program to be executed, the transmitted data and the SIP URI of every client; and

a plurality of transmission units used to bridge the local connecting port or the remote connecting port and the microprocessor unit for transmitting the data packet.

12. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 11, wherein the memory unit is an ROM, a DRAM or a flash Memory.

13. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 11, wherein the transmission unit is a broad band modem interface, an Ethernet interface or a wireless LAN interface.

14. (Currently Amended) The telecommunication network ~~system~~ as claimed in claim 1, wherein the SIP call server program is proxy server program, registry server program, location server program, redirect server program or voice mail server program.

15. (Currently Amended) The telecommunication network system as claimed in claim 1, further comprising:

at least one IP phone connecting port for coupling with at least one IP phone; and

a voice processing module electrically connected with the IP phone connecting port and the SIP processing module, the voice processing module serving to convert the voice signal of the IP phone into digital signal and convert the digital signal of the SIP processing module into voice signal, whereby by means of the IP phone, a user can directly telecommunicate with the remote SIP agent client by voice.

16. (Currently Amended) The telecommunication network system as claimed in claim 15, further comprising:

a compressing/decompressing processor electrically connected to the IP phone connecting port for compressing/decompressing the voice signal; and

a digital signal processor electrically connected to the compressing/decompressing processor and the SIP processing module for converting the voice signal into digital signal or converting the digital signal into voice signal.